

ABSTRACT OF THE DISCLOSURE

A process for the conversion of hydrocarbons that are solid or have a high boiling temperature and may be laden with metals, sulfur or sediments, into liquids (gasolines, gas oil, fuels) with the help of a jet of gas properly superheated between 600 and 800°C. The process comprises preheating a feed 5 in a heater 8 to a temperature below the selected temperature of a reactor 10. This feed is injected by injectors 4 into the empty reactor 10 (i.e., without catalyst.) The feed is treated with a jet of gas or superheated steam from superheater 2 to activate the feed. The activated products in the feed are allowed to stabilize at the selected temperature and at a selected pressure in the reactor and are then run through a series of extractors 13 to separate heavy and light hydrocarbons and to demetallize the feed. Useful products appearing in the form of water/hydrocarbon emulsions are generally demulsified in emulsion breaker 16 to form water laden with different impurities. The light phase containing the final hydrocarbons is heated in heater 98 and is separated into cuts of conventional products, according to the demand for refining by an extractor 18 similar to 13.

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